Amendments to Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. - 7. (Canceled)

8. (Currently Amended) A device for long term measurement and monitoring of strong magnetic fields, comprising of a magnetic field sensor; and

an analyser unit for ~~the~~ evaluation of signals from said magnetic field sensor, wherein said analyser unit forms ~~at least a derivation~~ a differentiation as a function of time from signals of said magnetic field sensor.

9. (Previously Presented) The device according to claim 8, wherein said analyser unit is designed that it forms an integral as a function of time from the signals of said magnetic field sensor.

10. (Previously Presented) The device according to claim 8, wherein said device comprises at least one memory associated with said analyser unit, to store at least one of the signals of said magnetic field sensor and values obtained by processing said signals.

11. (Previously Presented) The device according to claim 8, wherein said device comprises at least one signaling unit associated with said analyser unit.

12. (Previously Presented) The device according to claim 8, wherein said magnetic field sensor and said analyser unit are incorporated in a common housing.

13. (Previously Presented) The device according to claim 8, wherein at least one optical and acoustical signaling means is provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the signaling means in controlled by said analyser unit.

14. (Currently Amended) The device according to claim 8, wherein at least one ~~additional~~ limit discriminator is provided in said analyser unit, which compares ~~one or several values~~ at least one value computed from the signals of said magnetic field sensor with ~~at least one~~ the predetermined limit and signals the entry of the value to the memory when this limit is exceeded.

15. (Previously Presented) The device according to claim 8, wherein said magnetic field sensor is a multi-dimensional field sensor and said analyser unit computes at least one of a magnitude and an orientation of the magnetic field vector from the said signals.

16. (Previously Presented) The device according to claim 8, wherein means are provided for at least one of communication and data exchange.

17. (Previously Presented) The device according to claim 16, wherein said at least one of communication and data exchange means are an interface for at least one of linking an external computer and a memory card.

18. (Previously Presented) The device according to claim 8, wherein said magnetic field sensor and said analyser unit are jointly accommodated in a housing that is suitable for being fastened in or on a piece of clothing, in a device housing or its package.

19. (New) A device for long term measurement and monitoring of strong magnetic fields, comprising of a magnetic field sensor; and

an analyser unit for evaluation of signals from said magnetic field sensor, wherein said analyser unit forms a differentiation as a function of time from signals of said magnetic field sensor, and stores into a memory only those signals from the magnetic field sensor that exceed a predetermined limit.

20. (New) The device according to claim 19, wherein said analyser unit is designed that it forms an integral as a function of time from the signals of said magnetic field sensor.

21. (New) The device according to claim 19, wherein said device comprises at least one memory associated with said analyser unit, to store at least one of the signals of said magnetic field sensor and values obtained by processing said signals.

22. (New) The device according to claim 19, wherein said device comprises at least one signaling unit associated with said analyser unit.

23. (New) The device according to claim 19, wherein said magnetic field sensor and said analyser unit are incorporated in a common housing.

24. (New) The device according to claim 19, wherein at least one optical and acoustical signaling means is provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the signaling means in controlled by said analyser unit.

25. (New) The device according to claim 19, wherein at least one limit discriminator is provided in said analyser unit, which compares at least one value computed from the signals of said magnetic field sensor with the predetermined limit and signals the entry of the value to the memory when this limit is exceeded.

26. (New) The device according to claim 19, wherein said magnetic field sensor is a multi-dimensional field sensor and said analyser unit computes at least one of a magnitude and an orientation of the magnetic field vector from the said signals.

27. (New) The device according to claim 19, wherein means are provided for at least one of communication and data exchange.

28. (New) The device according to claim 27, wherein said at least one of communication and data exchange means are an interface for at least one of linking an external computer and a memory card.

29. (New) The device according to claim 19, wherein said magnetic field sensor and said analyser unit are jointly accommodated in a housing that is suitable for being fastened in or on a piece of clothing, in a device housing or its package.